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Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application.

Listing of Claims:

1 - 8. (Canceled)

9. (Currently Amended) A microscopy system for visualizing a fluorescence of a fluorescent substance in an object to be inspected, comprising:

a microscopy optics having

a first beam path for optically imaging an object region onto a light detecting component of a first camera for generating first image data representing images of the object region with light including wavelengths of a first wavelength range comprising a fluorescent emission wavelength of the fluorescent substance, and

a second beam path for providing a magnified first representation of the object region, wherein the first representation represents images of the object regions with light including wavelengths of a second wavelength range comprising at least visible light;

~~an image~~ a memory for storing a set of first image data detected by the first camera during at least a time duration; and

a display system; and

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a controller for accessing the stored set of first image data from the memory and for supplying plural second representations generated from at least a subseries of the stored set of first image data to the display ~~a display system configured to so as to cause the display system to sequentially display the plural second representations generated from at least [[a]] the subseries of the stored set of first image data such that the plural second representations are displayed in superposition with the first representation for observation by a user, wherein the display system is configured for repeatedly displaying the series of plural second representations in superposition with the first representation.~~

10. (Currently Amended) A microscopy system for visualizing a fluorescence of a fluorescent substance in an object to be inspected, comprising:

a microscopy optics having

a first beam path for optically imaging an object region onto a light detecting component of a first camera for generating first image data representing images of the object region with light including wavelengths of a first wavelength range comprising a fluorescent emission wavelength of the fluorescent substance, and

a second beam path for providing a magnified first representation of the object region, wherein the first representation represents images of the object regions with light including wavelengths of a second wavelength range comprising at least visible light;

~~an image~~ a memory for storing a set of first image data detected by the first camera during at least a time duration;

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a display system; and
a controller for accessing the stored set of first image data from the memory and
for supplying plural second representations generated from at least a subseries of the
stored set of first image data to the a display system configured to so as to cause the
display system to sequentially display the plural second representations generated from at
least [[a]] the subseries of the stored set of first image data such that the plural second
representations are displayed in superposition with the first representation for observation
by a user; and user.

[[a]] wherein the controller is configured to select the subseries of the set of first
image data from the set of first image data based on intensities of the plural images
represented by the first image data.

11. (Currently Amended) A microscopy system for visualizing a fluorescence
of a fluorescent substance in an object to be inspected, comprising:

a microscopy optics having

a first beam path for optically imaging an object region onto a light
detecting component of a first camera for generating first image data representing
images of the object region with light including wavelengths of a first wavelength
range comprising a fluorescent emission wavelength of the fluorescent substance,
and

a second beam path for providing a magnified first representation of the
object region, wherein the first representation represents images of the object
regions with light including wavelengths of a second wavelength range

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comprising at least visible light;

~~an image~~ a memory for storing a set of first image data detected by the first camera during at least a time duration;

a display system; and

a controller for accessing the stored set of first image data from the memory and for supplying plural second representations generated from at least a subseries of the stored set of first image data to the display ~~a display system configured to so as to cause the display system to sequentially display the plural second representations generated from at least [[a]] the subseries of the stored set of first image data such that the plural second representations are displayed in superposition with the first representation for observation by a user; and~~

a controller configured for selecting the subseries from the set of first image data based on differences between intensities of the images represented by the first image data of the first set.

12 - 29. (Canceled)

30. (Previously Presented) The microscopy system according to claim 9, wherein the second beam path comprises at least one ocular for representing the magnified first representation of the object region.

31. (Previously Presented) The microscopy system according to claim 30, wherein the display system is further configured to superimpose the plural second

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representations with the second beam path directed to the ocular.

32. (Previously Presented) The microscopy system according to claim 9, wherein the first beam path comprises at least one light detecting component of a second camera for generating second image data representing images of the object region with visible light, and wherein the display system is further configured to display a representation of the second image data.

33, 34. (Canceled)

35. (Currently Amended) A microscopy method of visualizing a fluorescence of an object to be inspected, the method comprising:

displaying a magnified first representation of the object for observation by a user, wherein the fluorescence of the object is substantially not visible in the first representation;

~~recording~~ detecting a series of plural fluorescent light images of the object during a time period;

storing image data corresponding to the series of plural fluorescent light images in a memory;

accessing the stored image data corresponding to the series of plural fluorescent light images from the memory; and

displaying the ~~recorded~~ series of plural fluorescent light images of the object generated from the accessed image data after the time period has lapsed such that the

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series of plural fluorescent light images is visible for the user and superimposed with the magnified first representation of the object.

36 - 39. (Canceled)

40. (Currently Amended) A method of treating an aneurysm of a patient, the method comprising:

clipping an aneurysm sac of the aneurysm using a clip;

injecting indocyanine green into the patient;

generating at least one fluorescence image detecting a series of plural fluorescence images of at least one artery adjacent to the clipped aneurysm;

storing image data corresponding to the series of plural fluorescent light images in a memory;

accessing the stored image data corresponding to the series of plural fluorescent light images from the memory;

generating a visible light image of an object region;

displaying the series of plural fluorescent light images generated from the accessed image data such that the series of plural fluorescent light images is visible for the user and superimposed with the visible light image of the object region;

assessing vascular blood flow of the at least one artery based on the ~~at least one fluorescence image series of plural fluorescent light images;~~

assessing whether the indocyanine green accumulates in the aneurysm sac based

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on the ~~at least one fluorescence image series of plural fluorescent light images~~; and

assessing a complete blocking of the aneurysm sac with the clip if the indocyanine green does not accumulate in the aneurysm sac.

41, 42. (Canceled)

43. (Previously Presented) The microscopy system of claim 9, wherein the fluorescent substance comprises indocyanine green.

44-52. (Canceled)

53. (Previously Presented) The microscopy system according to claim 10, wherein the second beam path comprises at least one ocular for representing the magnified first representation of the object region.

54. (Previously Presented) The microscopy system according to claim 53, wherein the display system is further configured to superimpose the plural second representations with the second beam path directed to the ocular.

55. (Previously Presented) The microscopy system according to claim 10, wherein the first beam path comprises at least one light detecting component of a second camera for generating second image data representing images of the object region with visible light, and wherein the display system is further configured to display a

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representation of the second image data.

56. (Previously Presented) The microscopy system of claim 10, wherein the fluorescent substance comprises indocyanine green.

57-65. (Canceled)

66. (Previously Presented) The microscopy system according to claim 11, wherein the second beam path comprises at least one ocular for representing the magnified first representation of the object region.

67. (Previously Presented) The microscopy system according to claim 66, wherein the display system is further configured to superimpose the plural second representations with the second beam path directed to the ocular.

68. (Previously Presented) The microscopy system according to claim 11, wherein the first beam path comprises at least one light detecting component of a second camera for generating second image data representing images of the object region with visible light, and wherein the display system is further configured to display a representation of the second image data.

69. (Previously Presented) The microscopy system of claim 11, wherein the fluorescent substance comprises indocyanine green.

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70-78. (Canceled)

79. (Previously Presented) The method of claim 35, wherein the displaying the recorded series of plural fluorescent light images of the object, comprises the repeatedly displaying the recorded series of plural fluorescent light images.

80. (New) The microscopy system of claim 9, wherein the controller is configured to cause the display system to repeatedly display the series of plural second representations generated from at least the subseries of the stored set of first image data in sequence and in superposition with the first representation.

81. (New) The microscopy system of claim 10, wherein the controller is configured to cause the display system to repeatedly display the series of plural second representations generated from at least the subseries of the stored set of first image data in sequence and in superposition with the first representation.

82. (New) The microscopy system of claim 11, wherein the controller is configured to cause the display system to repeatedly display the series of plural second representations generated from at least the subseries of the stored set of first image data in sequence and in superposition with the first representation.

83. (New) The method of claim 35, comprising repeatedly displaying in sequence the series of plural fluorescent light images generated from the image data

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accessed from the memory in superposition with the magnified first representation.

84. (New) The method of claim 40, comprising repeatedly displaying in sequence the series of plural fluorescent light images generated from the image data accessed from the memory in superposition with the visible light image of the object region.